

# New Species of *Caelius* Lew. (Coleoptera, Scarabaeidae, Aphodiinae) from Himalayas

by

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With 10 figures

## ABSTRACT

Four new species of *Caelius* Lew. are described and figured. Key to the species recorded hitherto from Himalayas is added.

The present paper is based on the material collected by members of the staff of the Natural History Museum in Genève, of the Natural History Museum in Basel and by participants of Polish Expedition 1981 to Nepal. The type-specimens of new and previously described species (*C. nepalensis* Petrov. and *C. zojilae* Stebn.) are deposited in the Museums mentioned above and in the Institute of Systematic and Experimental Zoology (ISEZ), Polish Academy of Sciences, Kraków.

I am greatly indebted to Dr I. Löbl from Genève and to Dr M. Brancucci from Basel for the opportunity to examine this material and for very valuable collaboration.

## KEY FOR THE IDENTIFICATION OF *CAELIUS*-SPECIES DESCRIBED FROM HIMALAYAS

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| 1. Elytra widest at middle, distinctly margined at base; three lateral intervals subopaque; humeral tubers vanishing . . . . . | 2 |
| — Elytra widest behind the middle, faintly margined at base; three lateral intervals shining; humeral tubers marked . . . . .  | 3 |

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2. Base of pronotum near posterior angles distinctly emarginate, marginal line medially wide; posterior angles sharp and protrudent; pronotal disc with few moderately coarse, scattered punctures . . . . . *C. zojilae* Stebn.
- Base of pronotum almost contiguously arcuate and equally margined; posterior angles obtuse, not protrudent; pronotal disc with moderately coarse, dense punctures . . . . . *C. mahriensis* nov. sp.
3. Base of pronotum more or less sinuate, weakly lobed at middle; pronotal disc with rather dense, mixed punctures throughout . . . . . 4
- Base of pronotum arcuate, unlobed at middle; pronotal disc finely, scarcely punctate with a few larger, scattered punctures . . . . . *C. nepalensis* Petrov.
4. First segment of middle and hind tarsi twice as long as the upper tibial spur; elytra less than 2.4 times length of pronotum . . . . . 5
- First segment of middle and hind tarsi one-third longer than the upper tibial spur; elytra 2.4 times as long as pronotum . . . . . *C. bagmatiensis* nov. sp.
5. Elytra 2.15 times as long as pronotum; anterior of head lengthwise wrinkled; genae obtusely rounded . . . . . *C. langtangicus* nov. sp.
- Elytra 2.0 times as long as pronotum; anterior of head not wrinkled with moderate, dense punctures; genae right-angled . . . . . *C. yangricus* nov. sp.

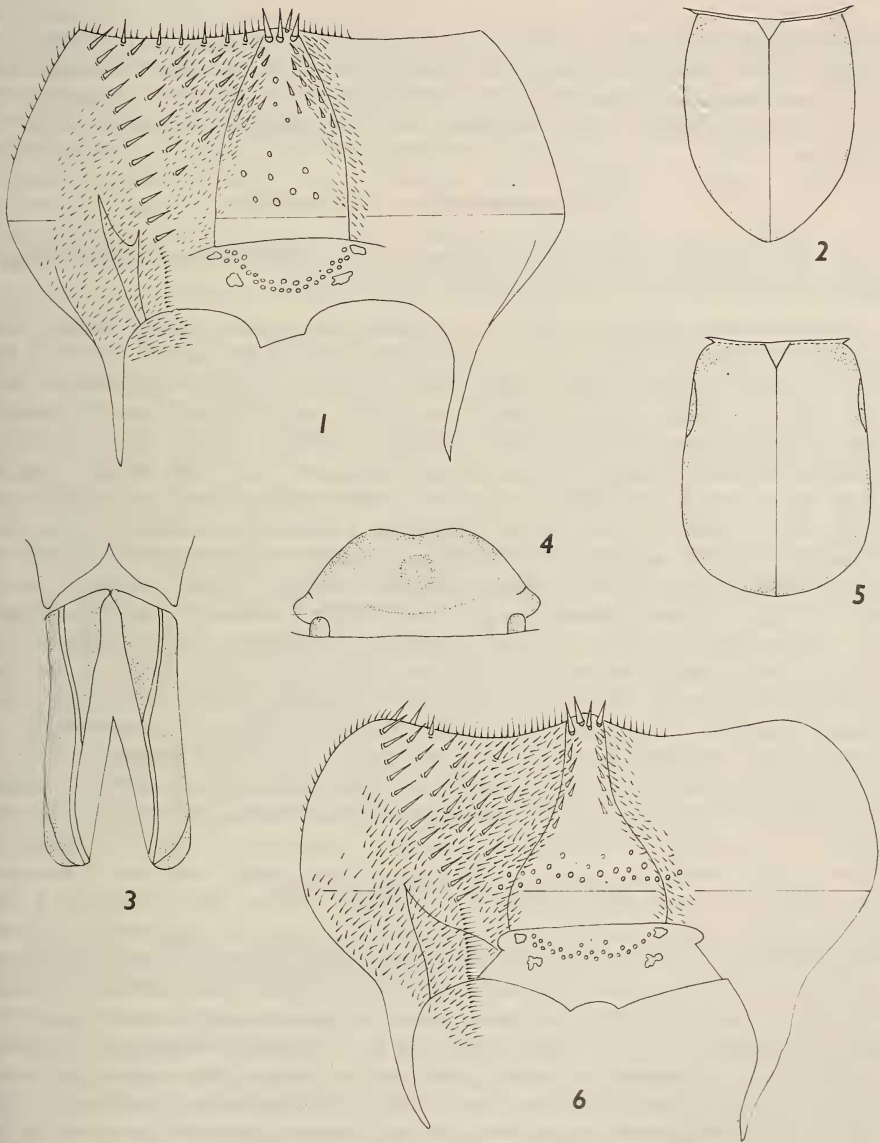
***Caelius mahriensis* n. sp. (Figs. 1-3)**

Holotype male: India, Himachal Pradesh, Mahri (3000-3200 m), 15.V.1977, W. Wittmer and M. Brancucci (Museum in Basel).

Paratype male: the same data as holotype (ISEZ, Kraków).

Length 4.0- 4.2 mm, greatest width 1.7-1.8 mm. Body oval, convex, moderately shining, black, anterior of head, apex and suture of elytra and legs dark reddish-brown. Head large, moderately convex, clypeus rounded each side of shallow median emargination, sides nearly straight to somewhat depressed, right-angled genae; middle of clypeus slightly convex, edge very finely reflexed, frontal suture indistinctly marked; clypeal surface alutaceous anteriorly, with mixed very fine and fine punctures more closely distributed above the frontal suture. Pronotum convex, sides visible from directly above, anterior angles rounded, sides narrowly margined and arcuate in front, inconspicuously emarginate and distinctly crenate before obtuse posterior angles; base arcuate, rather strongly margined and crenate; middle basal area with weakly impressed vertical line; the pronotal surface everywhere densely punctate, the punctures mixed fine and moderately coarse, separated by one or two times their diameters, more concentrated near anterior angles. Scutellum triangular, impunctate. Elytra oval, convex, humeri distinctly dentate; humeral tubers vanishing, wings reduced, elytral suture coalescent; elytral striae strongly impressed, moderately coarse distant punctures weakly crenating inner margins of the intervals; two lateral intervals more convex and slightly alutaceous, the remaining intervals moderately shining, impunctate. Metasternum convex with small carina in anterior median area, entire surface coarsely and densely punctate. Abdominal sterna dark brown, shagreened, finely punctate with a single row of yellow hairs. Middle and hind femora rather narrow with dense punctures bearing yellow hairs; lateral teeth of fore tibia small, sharply pointed, apical spur slightly curved inwardly at the tip; middle and hind tibia slender, transverse ridges distinct, apical

setae unequal in length, apical spurs slender and thin; first posterior tarsal segment one-third longer than the upper tibial spur and subequal to following three segments combined.



FIGS. 1-6.

1-3. *Caelius mahriensis* n. sp.; 1. epipharynx; 2. elytra; 3. aedeagus dorsally.  
4-6. *C. bagmatiensis* n. sp.: 4. head; 5. elytra; 6. epipharynx.

Epipharynx. The setae of acanthoparia thin, moderately long, these of acroparia the same length with somewhat thicker bristles mixed; the bristles of chaetoparia and numerous bristles of chaetopodium equal in size, the remained setae of paria and pedium thin, the same length as those of chaetoparia. Coryphal bristles short, moderately thick.

Affinity. *C. mahriensis* n. sp. is very close to *C. zojilae* Stebn. described from India, but posterior angles of pronotum are not so distinctly emarginate and protrudent, the base is less strongly margined, the pronotal punctures are more noticeable and more densely distributed than in *C. zojilae*. The shape of convex, oval elytra and very small, vanishing humeral tubers separate these two species from others found in Himalayas.

*Caelius bagmatiensis* n. sp. (Figs. 4-6)

Holotype female: Nepal (Prov. Bagmati) above Tarke Ghyang (3000-3400 m), 20.IV.1981, I. Löbl and A. Smetana (Museum in Genève).

Length 4.8 mm, greatest width 2.1 mm. Body oblong oval, convex, shining, fore body black, anterior of head, sides of pronotum, elytra and legs reddish-brown, elytral striae somewhat darkened. Head large, convex, margin of clypeus rounded each side of very shallow median emargination, sides slightly arcuate to somewhat depressed, nearly right-angled genae, edge very finely reflexed; middle of clypeus distinctly convex, frontal suture clearly marked; clypeal surface alutaceous, finely and densely punctate in front below and on the sides of convexity, middle minutely punctate, head basally shining with a band of closer, deeper punctures. Pronotum moderately convex, subdepressed in anterior angles and two foveae are vaguely discernible each side; anterior angles obtusely rounded, sides narrowly margined and finely crenate, arcuate in front, nearly straight to obtuse posterior angles; base distinctly but not strongly margined, finely crenate, weakly lobed at middle and faintly emarginate near posterior angles; surface punctures mixed very fine to fine and moderately coarse, the later more concentrated basally and on the sides of pronotum, separated by one to three times their diameter. Scutellum triangular, shining, impunctate. Elytra convex, widest behind the middle, faintly margined basally, finely but sharply dentate at shoulders, humeral tubers marked; striae rather deep, stria punctures as wide as striae, slightly crenating edges of the intervals; three lateral intervals more convex than the remained, all intervals shining, very minutely, inconspicuously punctate. Metasternum convex, shagreened, midline feebly impressed, surface rather coarsely and densely punctate. Abdominal sterna shagreened, finely punctate with a row of short, yellow hairs. Middle and hind femora narrow, shagreened, the punctures similar as those of metasternum bearing short yellow hairs; lateral teeth of fore tibia small, sharply pointed, apical spur straight; middle and hind tibia slender, transverse ridges distinct, apical setae subequal in length, apical spurs short and thin; first posterior tarsal segment approximately one-third longer than the upper tibial spur and subequal to the following three segments combined.

Epipharynx. The setae of acanthoparia and acroparia thin, moderately long; the bristles of chaetoparia and numerous bristles of chaetopodium moderately thick and moderately long, equal in size, the remaining setae of paria and pedium thin, the same length as those of chaetoparia. Coryphal bristles short, moderately thick.

Affinity. *C. bagmatiensis* is very close to *C. nepalensis* Petrovitz (1968), similarly as *C. langtangicus* n. sp. and *C. yangricus* n. sp. The differences between these species are given in the key.

***Caelius langtangicus* n. sp. (Figs. 7-8)**

Holotype female: Nepal, Langtang National Park, vicinity of valley Gosainkund, Laurobinyak (3850 m), zone of shrubby rhododendron, 27.IX.1981, J. Pawłowski (ISEZ, Kraków).

Length 4.8 mm, greatest width 2.0 mm. Body oblong oval, convex, shining, fore body black, anterior of head, sides of pronotum, elytra and legs (except darkened femora) brown. Head large, convex, clypeus with finely reflexed margin, nearly dull anteriorly without evident emargination, genae somewhat depressed, obtusely rounded, middle of clypeus convex, frontal suture distinctly marked; surface alutaceous, wrinkled anteriorly, gradually fine to very moderately coarse punctures upward over median convexity to front; frontal and occipital area shining, the punctures dense, generally separated by their diameters or less. Pronotum moderately convex, anterior angles obtuse, sides visible from directly above, narrowly margined and minutely crenate, slightly arcuate to obtuse posterior angles; base distinctly but not strongly margined, finely crenate, faintly sinuate and weakly lobed at middle; disc with impunctate midline, the punctures mixed very fine and moderately coarse separated by one or two times their diameters, laterally the fine punctures disappear and moderately coarse punctures become more dense. Scutellum triangular, shining, impunctate. Elytra convex, widest just behind the middle, distinctly margined basally, humeri finely, sharply dentate, humeral tubers marked; striae moderately deep, strial punctures slightly crenating inner margins of the intervals; intervals shining, moderately convex, minutely punctate. Metasternum convex, shagreened, midline feebly impressed, surface finely, densely punctate. Abdominal sterna shagreened, finely punctate with a row of short, yellow hairs. Middle and hind femora narrow, alutaceous with fine, rather close punctures bearing short yellow hairs; lateral teeth of fore tibia small, sharply pointed, apical spur straight; middle and hind tibia slender, transverse ridges distinct, apical setae unequal in length, apical spurs short and thin; first posterior tarsal segment nearly twice as long as the upper tibial spur and equal to the following three segments combined.

Epipharynx. The setae of acanthoparia thin, short, these of acroparia the same length with somewhat thicker bristles mixed; the bristles of chaetoparia and numerous bristles of chaetopodium rather short and thin, equal in size; the remaining setae of paria and pedium thin, the same length as those of chaetoparia. Coryphal bristles short, moderately thick.

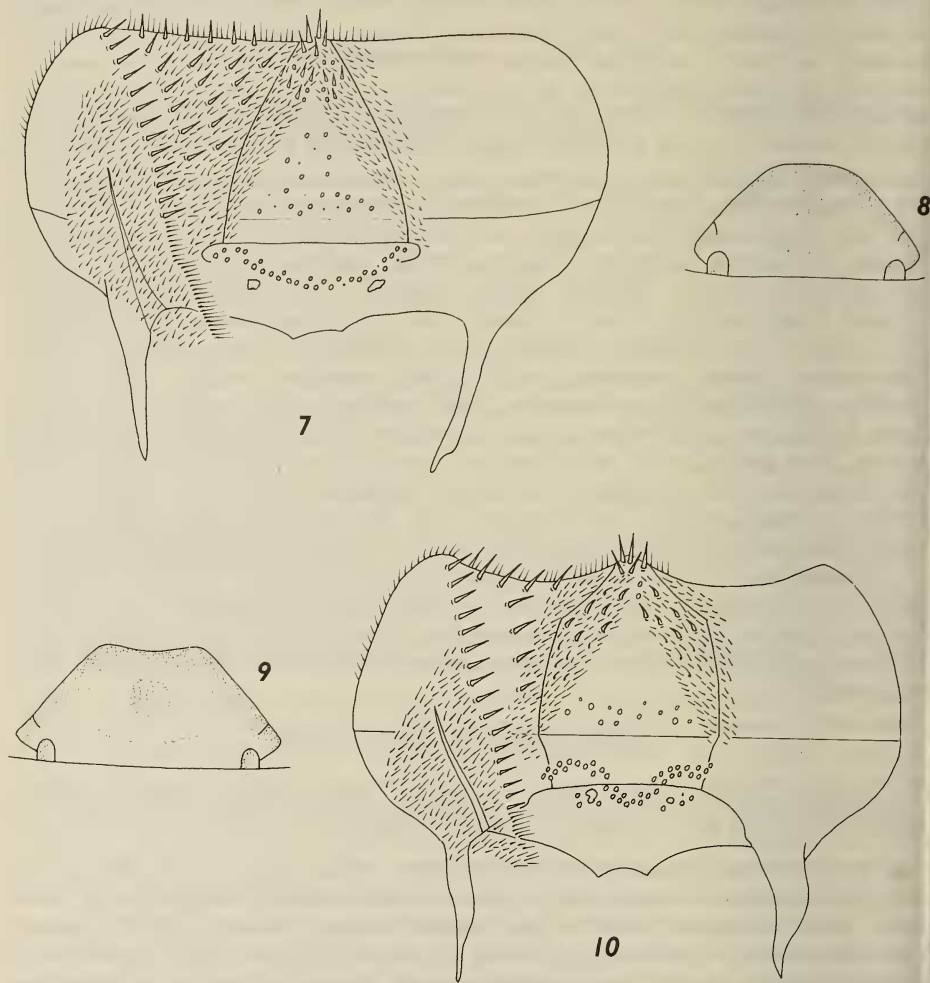
***Caelius yangricus* n. sp. (Figs. 9-10)**

Holotype female: Nepal (Prov. Bagmati), Yangri Ridge, Yangri (4150 m), 24.IV.1981, I. Löbl and A. Smetana (Museum in Genève.)

Length 4.5 mm, greatest width 1.8 mm. Body oblong oval, convex, shining, fore body black, anterior of head, sides of pronotum, elytra and legs reddish-brown. Head rather large, moderately convex, clypeal margin distinctly reflexed, obtusely rounded each side of shallow median emargination, sides nearly straight to right-angled genae; middle of clypeus convex, frontal suture distinctly marked; clypeal surface alutaceous with dense, moderately coarse punctures, median convexity very finely punctate; front and occiput shining with mixed very fine and larger punctures separated by one diameter or less. Pronotum moderately convex, anterior angles rounded, sides visible from directly above, narrowly margined and minutely crenate, nearly straight to obtuse posterior



angles; base distinctly margined, crenate, weakly lobed at middle and faintly emarginate near posterior angles; surface with narrow, impunctate midline, the punctures mixed very fine to fine and moderately coarse, separated by one or two their diameters on the disc, laterally the punctures become more uniform in size and dense. Scutellum triangular, shining, very minutely punctate at base. Elytra convex, widest just behind the middle, slightly margined basally, humeri very finely but sharply dentate, humeral tubers small; striae moderately deep, moderately coarse distant punctures weakly crenating inner margins of the intervals; intervals shining, impunctate, three lateral



FIGS. 7-10.

7-8. *Caelius langtangicus* n. sp.: 7. epipharynx; 8. head. —  
9-10. *C. yangricus* n. sp.: 9. head; 10. epipharynx.

intervals more convex than the remained. Metasternum convex, slightly alutaceous, midline weakly marked; surface in anterior part finely punctate with larger and closer punctures posteriorly. Abdominal sterna shagreened, finely and closely punctate with very short yellow hairs. Middle and hind femora narrow, alutaceous, rather coarsely and densely punctate; lateral teeth of fore tibia small, sharply pointed, apical spur straight; middle and hind tibia slender, transverse ridges distinct, apical setae subequal in length, apical spurs short and thin; first posterior tarsal segment as long as the upper tibial spur and somewhat shorter than the following three segments combined.

Epipharynx. Acroparia and acanthoparia with thin, rather short setae; the bristles of chaetoparia moderately thick, these of chaetopodium thicker, unequal in length; the remaining setae of paria and pedium thin, the same length as those of chaetoparia. Coryphal bristles short, thin.

#### REFERENCES

- PETROVITZ, R. 1968. Scarabaeidae aus Indien und Nepal (Coleoptera). *Z. ArbGem. öst. Ent.* 20: 35-38.
- STEBNICKA, Z. 1981. Aphodiinae from the Himalayas, Assam and Sri Lanka (Coleoptera, Scarabaeidae). *Entomol. Basil.* 6: 319-327.
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